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SPATIAL CORRELATION OF IONOSPHERIC VARIAIBILITY

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The ionosphere is a highly variable medium on many spatial and temporal scales. This variability can have important consequences for all systems which rely on transmission through or reflection from the ionosphere. Study of these variations requires ionospheric data collected with a time resolution sufficient to resolve the shortest periods of interest. It is also necessary to have a relatively long sequence of such data in order to adequately define the normal background variability at these time scales. In this paper, some results of a year long experimental campaign to determine the magnitude and spatial correlation of ionospheric variations will be presented. High resolution (five minutes) time coherent digital ionosonde data for this effort are being collected at two sites, NRaD in San Diego and Utah State University's Bear Lake facility near Logan, UT. Examples of the correlation between ionospheric parameters observed at San Diego and Bear Lake will be presented.

Submitted to Commission G.